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EX-SHELTERBELTER APPRAISES PROJECT TRAINING OPPORTUNITIES

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(This article was submitted by Donald P. Duncan, formerly a member of the PSFP family. Duncan served as a Subdistrict Officer in Kansas from March, 1939 until the end of December, 1940, when he transferred to the Southern Forest Experiment Station. At present he is situated at the W. W. Ashe Forest Nursery, at Brooklyn, Mississippi, where he is engaged in "guidance and advice" work. He says that to date he has been on the receiving end of most of the guidance and advice, but is gradually getting acquainted with the new job.)

One of the most important incidental accomplishments of the Prairie States Forestry Project to my mind, even though not one of its primary aims, is the leadership training which it affords its personnel, particularly the younger men. Perhaps nowhere else within the Forest Service is such training more universally offered.

The ability to deal with people successfully, an essential to effective leadership, is a characteristic indispensable in shelterbelt work. Consequently, such ability is necessarily acquired, though of course in varying degree. The daily duties including contacts with numerous cooperators and community leaders, such as editors, county agents, county commissioners, welfare directors, Farm Bureau officers, influential businessmen and others, not only afford valuable training because of the actual personal experiences involved but also because of the chance to observe and compare the various methods used by the respective community leaders.

A wide knowledge of proper land use and conservation principles as tools of forestry and agricultural leaders is becoming increasingly important. Particularly the social aspects in the application of sound principles of land use and conservation have recently been emphasized in increasing degree. Those engaged in work on the PSFP are or should be continually thinking in terms of social benefits, good land use and conservation principles.

One of the goals of all people genuinely interested in Great plains tree planting is more and better shelterbelts. Obtaining closely integrated effort on the part of the several sources of leadership within each community toward this common goal calls for considerable finesse on the part of the Forest Service Officer. If successful, he must obtain and direct the interest of these leaders through personal contact, lectures and newspaper publicity, and thus influence public thinking in the direction of "the greatest good to the greatest number in the long run" through shelterbelt planting.

It is generally agreed that one of the most important factors in the German army's series of successes is the excellent integration under capable leadership of the several branches of their war machine. Americans, with their democratic way of life, can at least be equally capable if leadership which cooperates efficiently is developed and given chance for expression. Cooperation as well as tactful leadership is basic to the PSFP. Every chance is offered to develop a very real personal asset in future work, no matter what that work may be.

MORTGAGE COMPANY APPROVES SHELTERBELT PROGRAM

press releases, show-me trips, meetings and exhibits all have their place, but nothing gives me the same satisfaction as learning that another individual is definitely in sympathy with our shelterbelt practices through what may appear to be a slow and old-fashioned system, the personal contact. To me, experience has proved that a background of solid individuals as active "key men" will go a long way toward settling many problems and removing many of the obstacles which continually obstruct our path from the land negotiation standpoint.

On Monday, June 9, C. L. Chase, of Watertown, who is Director of Farm Management for the Northwestern Mortgage Company of Minneapolis, came into my office shortly after 8:00 A.M. Mr. Chase, in company with Mr. L. E. Gilbert, Treasurer of the company and an officer of several other firms located in Minneapolis, had left on a tour of his territory by airplane on June 1. Chase told me of his trip and said that his area ranged from eastern South Dakota west to the coast and south into Missouri and Arkansas.

In the words of Mr. Chase, "The thing that impressed us most during the entire trip was not the scenery, the farms, the timber, or the crops, but the shelterbelt plantings in South Dakota, Nebraska, and Kansas. In fact, Mr. Gilbert was so full of questions pertaining to these plantings that I frequently wished I had been technically connected with the program." However, I might add that Mr. Chase's conversation indicated that he was well-grounded in the basic principles of the shelterbelt project even to the extent of differentiating between basic and intermediate belts.

Mr. Chase requested that I write up an article of a project-wide nature describing the program of the PSFP. Since he wanted the article on that day and also preferred that it come from his Watertown (S. Dak.) head-quarters, there was no alternative for me but to emulate Ed Perry and let him have it.

This article, which is to be printed in the official publication of the company, the "Northwest Commentator," represents Mr. Gilbert's and Mr.

Chase's initial means of attracting their cooperators and clients to the shelterbelt idea.

This effort should be well worth while, I believe, since the Northwestern Mortgage Company represents 12 life insurance companies, about 500 trusts, estates and individuals; Mr. Chase's area comprises over 4000 clients, a large share of which reside on farms in the Plains States.

- Bruce S. Arnold, S.Dak.

(Few things that have happened on this Project - in the public relations field, at least - give me greater satisfaction than the occurrence cited by Arnold. Whenever the people who are handling trust funds put their stamp of approval on a program, you can bet your bottom dollar that the program is economically sound. They can't afford to be wrong very often in such matters, and they never indulge in aimless flattery. It is a real achievement on the part of the South Dakota personnel.

Arnold is right about the value of influential proponents of the Project, and no one will be likely to dubb "old-fashioned" the method of personal contact in acquiring and keeping such friends. Still, this same incident demonstrates very graphically the value of show me trips and the written word. It was a show me trip - though self-conducted - that was directly responsible for the action taken, and when the men decided to pass their message on to their many clients, they fell back on the only economical means of doing so - a "news release" in a periodical read by their clients.

- E. L. Perry, R.O.)

AERIAL PHOTOGRAPHS OF SHELTERBELTS

For the past couple of months the writer has been dabbling in aerial photographs of individual belts and special area concentrations. For a strictly amateur photographer, the results have been rather surprising. It may be that other States in the Project have obtained aerial photographs which are not only better but they may have also developed a technique which would consistently provide good results. However, for the benefit of those who may be interested, the writer would like to offer the following:

A small camera similar in size to the type used for kodachrome with Plus X film formed the photographic equipment. Although good results were obtained from small prints and for enlargements up to 5x7" or in occasional instances up to 8x10", the aforesaid camera is too small if the general object is to get pictures for reproduction purposes. Therefore, some fairly large box type camera (without bellows, as the motor vibration causes flutter) giving postcard size or larger negatives should be used.

A small or low speed plane similar in type to the Taylorcraft or Cub should be used for the amateur photographer. High-speed planes can be used with the large army type of aerial cameras but to get some real pictures showing size and detail and other human interest features, a slow-speed plane is suggested. The writer used a 55 HP Taylorcraft, shooting all pictures through a slightly tinted windshield which was clear of sunchecks and other defects.

General area shots were taken from altitudes varying from 1200 to 1800 ft. Closeups were taken from 200 to 500 ft. Special care was needed to level out the horizon in the viewfinder of the camera. The latter was stopped at a 16 opening with 1/100 second shutter speed at infinity. Local photographers recommend faster speeds and larger shutter openings. Incidentally, side views make better prints than lenghwise shots of the belts.

The pictures make excellent I & E material as these aerial shots attract considerable attention when properly labeled. They should prove invaluable as "before and after" shots of individual areas. Some AAA aerial maps are already showing how shelterbelts are appearing on the landscape.

Costs are comparatively light. Normally a plane would cost \$7.00 to \$8.50 an hour from an accredited flying service. Private planes can be rented at a lower rate from young flyers trying to build up their flying hours. Quite a large number of pictures can be taken in a short time where the belts are fairly close together and the airport is within a reasonable flying time of the concentration.

- Hyman M. Goldberg, Tex.

OUR STUBBLE FIRE POSTER IMPRESSES STATE FIRE MARSHAL

When the Kansas poster shop got out the "Keep Stubble Fires Away From Trees" poster, a copy was sent to the Governor's office at Topeka. Very shortly our Kansas State Office received the following letter from Clyde Latchem, State Fire Marshal:

"I have just received, from the governor's office, a poster made and distributed by your agency and which is designed to aid in the protection of trees in the rural areas.

"Having a record of the fire losses in Kansas over a long period of years we could not help but agree with you when you state that every year wheat and stubble field fires cause considerable loss to the citizens of our state.

"We must admit that we have entirely overlooked the damage to growing trees. In fact, a short while ago we put out posters in cooperation with the State Highway Patrol, a copy of which is enclosed. You will note that in our appeal for assistance in preventing fires that destroy grain fields we directed our appeal primarily along the line that cooperation would preserve the food supply.

"After receiving your poster it makes one realize that the burning of stubble fields that would destroy trees which could not be replaced except after a long period of time, would in reality be a far greater loss than a field of grain that did not destroy these living trees.

"I do not mean to infer that we should neglect the protection of fields in favor of preserving living trees, but I do mean that we should include in our plans the protection of trees as well as grain. "I am inclined to believe that it would help some if we would encourage the farm people to plow around the edges of fields adjoining patches of timber.

"Our primary effort is, of course, to prevent the starting of unnecessary and destructive fires. This, we know, is not always successful. Therefore, if we encourage the plowing of furrows that will help control the spread of these fires into areas where damage can be done, then we will at least have improved our general protective scheme.

"I appreciate receiving your poster and I honestly believe that it will be of real benefit. I know that sending it to the governor's office at least gave us an entirely different slant on stubble field fires."

DROUGHTS DEFEATED IN WESTERN OKLAHOMA THIS YEAR

On April 10, 1935, I assisted in planting the fourth belt set out on the PSFP, which was the James Sheridan belt in Jackson County. Since our shelterbelt planting was something new and hadn't been tried before, it was practically agreed by everyone that no trees would grow in this part of the country because of the lack of precipitation. The first year this belt was in existence it had a survival of 80 percent and a good growth. This convinced a considerable number of people that trees would grow here if given proper care.

There were few people who supposed at that time or even up to this year that trees would ever be lost because of too much rain. However, on July 2 Mr. Carleton and I borrowed a boat and went out to the John Babek belt in Greer County. Water covered approximately 150 yards of the belt which is one-half mile long, and we were informed that this water had been standing for 25 or 30 days previous to this date. We got into the boat and went out to the shelterbelt to investigate the stability of the various species. We found that practically all of the two rows of Apricots within the 150 yards were dead and a few Desertwillow had died out. The Chinese Elm seemed to be the next species that would die if the water continued to stand much longer.

While out in the boat we observed that a few Apricots were still on the trees, some floating on top of the water and some had sunk. We gathered the Apricots still on the trees and also some Currants and Osageorange Apples.

Who would ever expect to find a Least Bittern or Shitepoke in a shelterbelt? Well, we did. Does that add to the wildlife record?

On our way back to Mangum we noted that several trees had died in the 1936 belt of L. A. Grady. While making an inspection of this belt Mr. Grady reported that practically all of the trees in his 3/8 mile 1941 belt were dead because of the excess moisture.

We have found that a considerable number of belts in the Willow and Blair areas have been affected either by washouts or by water standing in the belts. The species which appeared to have been damaged the most were the Chinese Elm, Desertwillow, Osageorange, and Cedar.

The details related above would appear to paint a rather dark situation this year, but we are not worried to any extent. When we take into consideration the good growth that the rain has given our later belts and some of our older ones, it surpasses the damage which has been done so greatly that we are sincerely thankful for the present soil moisture conditions.

- Aubry E. Kirk, Okla.

SOUTH DAKOTA SALUTES THE SQUAD FOREMEN

With the passing of the last fiscal year South Dakota is losing a group of men who have given us much and who have been instrumental in no small measure in putting our program across.

The men of whom I speak are the Squad Foremen. The boys who made the "wheels roll"; the fellows who were close enough to the ground to really get soiled; the lads who tightened their belts another notch during the meager winter periods and came up smiling in the spring to pitch in and help "put over the show" for another year.

We shall all miss these men as many of them are pioneers of the Project and knew most of the answers. Existing circumstances have victimized them for the time being, but the visible, growing examples of their work in the communities will doubtless serve them in good stead for future occupations.

I sincerely hope and believe that I speak the sentiments of the entire state personnel in paying tribute to these boys and extending my profound good wishes for the future.

- Howard J. Martley, S. Dak.

Martley "beat me to it" with the above timely article, which I think is most fitting and true. Squad Foreman have meant more to South Dakota than any other state because we have used more men in this position. As is usually the case, we did not realize how valuable Squad Foremen were to the organization until we were forced by circumstances beyond our control to get along without them. They have been, almost without exception, a hard-working loyal group of men who have had the well-being and progress of the work foremost in their minds. I elected to tell these men the situation personally and therefore called each District group together for this purpose. In my entire experience I cannot recall a thing that was harder for me to do. Consistent with past performance they took it "on the chin" without flinch or complaint. They openly tried to make it easier for me when they saw how distressing it was for me to break the news. There is a bunch of men I can never forget. They deserved more than we could give them, and it is my hope that the experience they gained while with us will serve as a ladder to elevate them to the stations they properly deserve in this American society of free men. I not only wish them well, but I'll back them to the limit because I know them and know what they can do.

- A. L. Ford, S. Dak.

Over 2500 patents have been granted on railroad tie materials to replace wood - without apparent success.

- (Dixie Ranger)

GOVERNOR MOSES INSPECTS ENDERLIN NURSERY

Following a banquet in honor of Governor John Moses of North Dakota, which was attended by some 200 pioneers and business men of Enderlin, the Governor paid a visit to the Enderlin Nursery, a community forest, and surrounding shelterbelts to inspect the work being done in that vicinity by the Forest Service. Nurseryman T.C. Hutchinson was in charge of the tour.

The Governor was greatly surprised at the growth of the trees in 1939 and 1940 shelterbelts and expressed great satisfaction on the work being done by the Forest Service. At the nursery he plied Mr. Hutchinson with scores of questions, and as his time was limited he expressed a strong desire to return again soon and make further inspection of the nursery and the recreational area in the adjoining community forest.

In an address at the Enderlin baseball park before several thousand people following his inspection tour, he paid high tribute to the work being done by the Forest Service at Enderlin and throughout North Dakota, and complimented the citizens of Enderlin on their splendid undertaking of establishing a community forest and supplying the site for a Forest Service Nursery.

While the Governor was delivering his address in Enderlin, Mrs. Moses accompanied by Mrs. T. C. Hutchinson and Mrs. Leo Wagner, of Sanborn, North Dakota, the wife of one of our cooperators, spent an hour looking over the nursery and the community forest. Mrs. Moses also expressed satisfaction with the work being done by the Forest Service.

The occasion for Governor Moses and Mrs. Moses' visit to Enderlin was the celebration of the Fiftieth Anniversary of the founding of Enderlin to which they were invited as honored guests.

- F. E. Cobb. N. Dak.

ON GETTING THEM OUT TO MEETINGS

During the past six years many methods and various means have been initiated and tried by the Project personnel for the purpose of stimulating inflow of sufficient applications to plant our quotas. From past experience we find that meetings and contacts directly with the landowners and tenant operators are generally the best means of disseminating information regarding the shelterbelts.

In shuffling through the different types and kinds of meetings attended in connection with our I & E activities we find that the same old faces show up at all the meetings held by the different agencies, such as the Forest Service, AAA, County Agents, Farmer Unions, etc. These are generally only key men or leaders for every agency operating in that area. The same thing is true of all women's organizations, such as the garden clubs, home demonstration meetings, etc.

In other words, our big stumbling blocks in properly carrying out our educational program are the farmers who are "backward" so far as attending meetings is concerned. I wonder if there isn't some way where we could get

next to this type of individual in order that we may "learn him about shelterbelts." I believe that we will have to expose this "problem farmer" to our program in some indirect manner if we are to get our educational program across to him.

In checking over and sorting out methods that can be used we find that for this purpose the rural and public schools are among our best bets. Also, past experience indicates that our biggest and most interesting crowds are reported at box socials, plays, parties and other school activities. Back in the olden days when Johnny, Freddy, Opal or Minnie were in the play or going to the basketball game, or some member of the family was taking part in any school activity, the whole family and all the relatives including grandma and grandpa went to see the young uns perform. Here we have represented all caliber of farmers from the destitute sharecropper with his 15 kids to the opulent landowner who owns one son and half the wealth in the county.

This fall and winter we plan to contact every school in our concentration areas and make an effort to prepare a tentative schedule or plans with the school teacher and school boards. It is hoped that this will give us a more complete coverage and a better distribution of all of our I & E activities.

At these meetings kodachrome slides and pictures of local characters with John Jones and Fred Doe in their shelterbelts will be shown. Also, a kodachrome picture of Freddy, Jr. with his prize hog and Percheron stallion that won the blue ribbon at the Tri-county fair last fall should be included in the show.

It is hoped these varied activities which have to do with the work and lives of the farmers, combined with the work of the Forest Service, will create sufficient interest so that these stay-at homes will attend the meetings. If this is accomplished we believe it will result in a talking up of our program and result in more uniform and greater inflow of applications.

- Mike F. Thomsic, Okla.

100% COOPERATOR CULTIVATION

Contention -- All cultivation work should be turned over to the farmers.

Reason-Better cultivation will be obtained.

Acting upon this line of reasoning the Columbus (Nebraska) Subdistrict has made an "all-out" effort to obtain complete farmer cultivation. Following is a resume of the work done this spring in the Subdistrict.

County Commissioners in the four counties in the Subdistrict were contacted to determine whether or not they would purchase one grape and shelterbelt hoe to match each hoe purchased by Community Tree Committees or other groups in their respective counties. The Commissioners in Polk and Butler counties agreed to match each hoe purchased with another one, but the Commissioners in Platte and Colfax counties did not feel they could follow the plan suggested.

The cooperators in each precinct, Community Tree Committee area, or other unit were then invited by circular letter, telephone call, and personal contact by the Tree Committee or Subdistrict Officer to attend a meeting to discuss the purchase of shelterbelt hoes. A suggested plan for group purchase and ownership of belt hoes was outlined to the cooperators in attendance and the agreement with the County Commissioners, as it pertained to the individual county, was explained. The Forest Service agreed to furnish any available hoes to match those purchased in counties where the County Commissioners were unable to match the local purchases. The following are the results by counties:

Polk County (96 belt miles). Nine groups or organizations purchased ten hoes, the County Commissioners purchased nine hoes, and one cooperator purchased one for his own use, making a total of 20 hoes, or one for every 4.8 miles of shelterbelts.

Butler County (51 belt miles). County Commissioners bought two hoes, groups bought three, the Forest Service furnished three, one was purchased for individual use, and a hoe similar to the shelterbelt hoe was privately constructed. Thus a total of ten hoes are available in the county or one for every 5.1 miles of belts.

Colfax County (9 belt miles). One hoe furnished by Forest Service.

(A new "shelterbelt" county, and cooperators are too widely scattered to permit effective use of a "group-owned" hoe.)

Platte County (87 belt miles). Groups purchased 12 hoes, Forest Service furnished five, three were bought for individual use, and two were privately constructed. A total of 22 hoes in the county or one for every four belt miles.

One hoe has been retained at the Subdistrict headquarters for loaning to areas where the cultivation may "get behind." This totals 54 shelterbelt hoes for the 500 cooperators in the four counties, or an average of one hoe for every nine cooperators.

To place further responsibility for proper cultivation on the shoulders of the cooperators the following plans are in effect in the Subdistrict: (1) The Groups selected one cooperator and made him responsible for the storage and routing of the hoe. (2) Each cooperator is responsible for the repair and maintenance of the hoe while in his possession. (3) The cooperators secure the hoes when they want to use them. (4) No Forest Service labor is used to assist in operating the hoes, and no special cultivation equipment is loaned to the cooperators.

The farmers seem to like it--they're an independent lot--and they do want to keep their belts clean. This, it would seem, is a fair method. This leaves whatever labor we may have free to "slick" up the belts, removing all foreign matter such as stumps, trees, brush, etc., that is competing with the stand.

- E. E. Evans, Nebr.

MOTOR LUBRICATION

For some time we have been confronted with the problem of how often the oil in the crankcase of our motor equipment should be changed. Some say that oil should be changed every 1,000 miles, while others say from 1,500 to 2,000 miles. Added to these claims are the statements of some refiners that their oil will protect up to 10,000 miles. Others insist that by installing an oil filter you need never change the cylinder oil. How are we to determine when to change oil? We believe it impossible to tell exactly because of the many things that affect the number of miles you can expect from a fresh crankcase full of oil.

During the past few years there has been great improvement in the construction of automobile engines. These improvements lead some of us to believe that our cars no longer need the attention that our old cars did. This belief however, only tends to increase the possibilities of causing serious harm to the automobile engine.

Improvements in motor designs have created conditions that make it easier on motor oil, but these are offset by new conditions brought about by increased engine speed, higher operating temperatures, and closer clearances within the engine. Also, we have other conditions that affect oil; namely, the physical condition, the mechanical condition of the engine, and last, a very important factor, the human element.

Motor lubrication today is a very difficult problem because of the fact that it has much more work to do. It must lubricate, it must cool, it must seal, and it must clean. That oil is for lubrication is self-evident, and many believe this to be the only function of motor oil. However, cooling has become a great part of oil's job since motors run hotter than ever before.

Higher compressions, closer fits, heavier-bearing shock loads, explosion temperatures that reach 3000° F. at the firing point, greater power and greater speed mean greater heat. Water alone will not carry off this heat, even though the cars of today have larger water-jacket capacities and water pumps that pump as much as 45 gallons per minute at 2000 R.P.M. Modern oil systems pump as much as $6\frac{1}{2}$ gallons per minute under pressure, to assist in the job of cooling a motor.

Have you ever stopped to consider what is actually happening in your motor? In 10,000 miles of travel each piston travels 3,700 miles up and down within its cylinder - 6,000 times each mile over a four-inch distance. The crankshaft turns 30,000,000 times and each valve opens and closes 15,000,000 times.

Oil must also seal the clearances between the pistons, rings, and cylinder walls against blow-by that could result from higher compressions.

Oil must clean the motor by washing away dirt and other foreign matter, and still combat oxidation and the formation of sludge.

Oil filters do not provide complete protection against wear from dirt, and can't catch the oxidized products of fuel and oil which may deposit on the working parts, as only a small portion of the oil passes through the filter at one time.

In order for oil to fully perform its function properly and insure proper protection to the automobile engine, it must retain its full-bodied fluidity. The only way to be safe is to change oil at regular intervals of around 1,000 miles, because beyond that point there may be a risk.

- Carroll C. Deal, Okla.

WHY NOT CORRELATE RODENT CONTROL WITH CULTIVATION?

In Polk County's Clear Creek Precinct in Nebraska, two rabbit hunts were held last winter. Bad weather took its toll of the crowd but enough rabbits were killed to pay for one grape and shelterbelt hoe, (jacks were sold at nine cents each) and the County Commissioners agreed to buy another hoe to match this one so there are now two shelterbelt hoes for use in the precinct.

It would seem that county precincts, farmer groups and organizations, or areas, could employ this plan to good advantage. Why not get something of value from the kills over and above the benefits of rodent control? The yearly hunts would keep adding belt hoes to the area to insure cleaner cultivation and each year the damage to the trees would be lessened immensely. All this in addition to the fact that everyone seems to enjoy a rabbit hunt.

- E. E. Evans, Nebr.

(And the plan of having the County Commissioners buy a hoe to match those purchased by the groups or organizations isn't a cold one. - E. G. Champagne)

ON PRUNING THE SHRUBS

I would like to present some of the early results of top pruning Desertwillow (Chilopsis linearis) in Texas.

The purpose of pruning was to see if we would get an increase in the density of the shrub row, and if so, whether the results would justify such action on a large scale, and to observe any other factors that might result from such pruning.

A one-half mile, year-old belt with more or less even topography and uniform soil type was selected for the study. The Desertwillow in Row 1 was an even stand throughout and averaged $58\frac{1}{2}$ inches in height before any pruning was done.

Four alternating plots of 1/8 mile each were than laid out, two plots left unpruned and two pruned back approximately one-half of their height, which gave an average height of $28\frac{1}{2}$ inches after pruning.

The plots were established in February, 1941, before any new growth occurred, and measurements of every 10th tree were taken immediately.

In brief, the results to date are as follows (after approximately 2 months growing season):

Pruned Desertwillow - four to five new shoots at or near the point of pruning, thus increasing density; average length of new shoots $19\frac{1}{2}$ inches; average height total 49 inches or a height growth of $20\frac{1}{2}$ inches since pruning.

Unpruned Desertwillow - no noticeable increase in density due to new growth; average length of new growth ll inches; average height $63\frac{1}{2}$ inches, or an increase in height growth of only five inches since establishing the study.

It is probably already noted that the increase in height on the unpruned trees does not correspond to the length of new growth. It was observed that, in all cases, from four to ten inches of last year's terminal had died back and that growth this year did not continue from a terminal bud. This condition appeared to be a natural one. (I would appreciate being enlightened on this point.)

While the study will not be completed until the last of the growing season, the results to date would indicate that top pruning will obtain a more desirable density. However, from the farmer's standpoint a more economical method, other than hand pruning shears, will probably have to be devised.

- Marvin G. Angle, Tex.

Comment by State Director

The dying back, probably due to winter killing of late fall growth, should have produced more branching than is reported - or should it?

The most practical and economical method for a farmer to use in pruning for increased density would likely be the use of a hay mower, set as high as possible, in late July or early August the first season planted.

- W. E. Webb

R.O. Chimes in, too

The above report is mighty interesting to one who has had his "neck out" for years in advocating pruning of certain of our shrubs to increase density. Of course, I think the ideal solution is to plant true shrubs such as quailbush (I can almost hear that groan coming up from down in Oklahoma) that develop density and hold their shrub form without pruning. Be that as it may, if Angle's report should inspire others to do likewise, I suggest referring first to the discussion on pruning of shrub rows on Pages 3 and 4 of the Stand Improvement Section in the Timber Management Handbook. It will be noted there that the recommended standard practice, where pruning is in order, is to prune to the ground line during the dormant season. However, nothing is said about a pruning implement, and while Webb's mowing machine would no doubt do the job in some cases, it might have hard going if the shrubs have reached a stage where stem caliper exceeds an inch or more.

A hand tool that would do the pruning job about as well as any is the brush scythe and that is an implement which is probably pretty scarce in this Plains country. However, most foresters grew up in the brush so no doubt know what is meant.

- Harold E. Engstrom

OUT OF THE CLARK

Hank Johnson "the Clark County man" has come up with a couple of contributions which may deserve a place in the PSFP's "Believe It or Not" department.

Only recently E. C. Graves was placed in the embarrassing position of explaining to "Hank" just why his tree belt was not being kept "black" in spite of the fact that he had enough equipment to give the whole Project that "machine age" complex.

Mr. Graves's 200a showed the following line of machinery:

1 Tractor John Deere Model D

1 Tractor Farmall F-20

1 Tractor Caterpillar 30

1 Tractor Aultman-Taylor 30-60

2 Cultivators, field

3 Cultivators, disc

7 Cultivators, double row

15 Cultivators, single row

This is not a complete inventory by any means, just that identified by Johnson in determining whether the farmer is equipped to adequately care for his tree belt.

Also, at this writing "Hank" has hit approximately the 65 thousand mile mark on a set of 8-ply tires which came with his pickup "way back when." The ultimate results of this particular achievement are thus far unpredictable, but it may be that "Hank" is the discoverer of a new trick that will save the Project a considerable amount of that precious "other money." This experiment is being continued at least until the treads on the tires begin to show signs of wear.

- Bruce S. Arnold, S. Dak.

NEBRASKA ORNITHOLOGISTS! UNION PUBLISHES SHELTERBELT BIRD CENSUS

"The Nebraska Bird Review," publication of the Nebraska Ornithologists' Union, has an article by Carroll Orendurff on the wildlife census that was made by the Nebraska unit last summer. This survey used a questionnaire form which was distributed to cooperators, and for eight species or groups showed increases ranging from 18% to 40%.

A note accompanying the copy of the magazine indicates that probably the article will be abstracted in the National Wildlife Review.

CONQUERING THE WIND

The primary goal of this Project is the taming and controlling of winds, although some of us may lose sight of it at times. I have seen many instances where the older shelterbelts have given adjoining land protection from the damaging winds. However, I have noticed only one instance in which the wind has been actually tamed and controlled.

Near Haviland is one of the belts planted in 1936 that has turned out most successfully. It has a good thick stand of trees with the older, faster-growing trees far enough along to start natural self-pruning. In fact, the trees are so dense that they caught Russian thistles last winter in a pile 14 feet deep the full length of the belt. It completely covered a replanted row on the north side that needed cultivation.

The owner, Mr. Binford, sought our advice on what to do with his thistle problem. Burning was impossible, and so was forking them out for that would have taken five men over a month. We advised him to let them go for they would make a moisture-holding mulch and were dense enough to prevent weed growth.

Later in the spring a small cyclone dropped to the ground nearby. It twisted a house, carried away a granary, and destroyed some fields of wheat. But when it came to this 1936 shelterbelt, it was "tamed and controlled." It very dutifully swept down the full length of the thistleclogged rows and swept them out cleaner than a vacuum sweeper could have done. Pruning off only the dead limbs, it lifted up again, carrying all the debris with it. So far as I know, the thistles weren't dropped again until they were back over Russia where they belong.

I am passing this along so that now you, also, can prove that shelterbelts "tame and control" the winds.

- Carl L. Hawkes, Kans.

FOREST SERVICE ORATORY DROWNS OUT FIRECRACKERS

North Dakota's Charles Waldron attended a Farmers Union picnic at Sheyenne on the Fourth of July. Somewhere between 1500 and 2000 persons were present and Charley was called upon by the presiding officer to make a talk about the shelterbelt program. Charley says that he made the talk all right, but that the "competition with firecrackers was terrific."

Charley thinks it is all right to "teach the young idea how to shoot," but not firecrackers nor when he is delivering an oration.

WEDDING BELLS

When Harold Davidson, Subdistrict Officer at Mitchell, left on a 12-day leave of absence last month and headed south instead of north, everyone figured there was something more than just a vacation in the wind. Sure enough, in due time Harold showed up with a brand-new bride, the former Miss Shirley Turk, of Gruver, Texas.

Steve Moro, clerk at Mitchell, who reports the return of the couple, says of the bride, "She is swell," and avers that there is no truth in the rumor that Harold planned his trip to Texas so as to catch his prospective father-in-law in the midst of wheat harvest and hence in no condition to put up an argument over the impending loss of his daughter.
